

CLAIMS

What is claimed is:

1. A gas flow device comprising:
 - an outer body having an inner cavity formed therein, the inner cavity
5 bounded by an inner wall of the outer body, the inner wall having an orifice
extending through the outer body;
 - an inner element within the inner cavity, the inner element having an
external wall with a coupling feature, the coupling feature aligned with the
orifice; and
 - 10 a gas fitting extending through the orifice and coupling with the coupling
feature.
2. The device of Claim 1 wherein the outer body and the inner element are of
different materials.
3. The device of Claim 2 wherein the outer body comprises aluminum.
- 15 4. The device of Claim 2 wherein the inner element is substantially made of brass.
5. The device of Claim 1 wherein the coupling feature includes matable threads.
6. The device of Claim 1 wherein the inner element is at least one of a pressure
reduction element or a flowmeter assembly.
7. The gas flow device of Claim 2 wherein the outer body has a first ignition point
20 in the presence of high pressure oxygen and the inner element has a second
ignition point in the presence of high pressure oxygen, wherein the second
ignition point is higher than the first ignition point.
8. A method of fabricating a gas flow device, comprising:
 - forming an outer body;

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forming an inner cavity in the outer body, the inner cavity bounded by an inner wall of the outer body;

forming an orifice through the outer body to the inner wall;

forming an inner element having an external wall with a second coupling feature;

mounting the inner element in the inner cavity; and

extending a gas fitting through the orifice and coupling the gas fitting with the coupling feature to secure the inner element within the inner cavity.

9. The method of Claim 8 further comprising forming the outer body and the inner element from different materials.
10. The method of Claim 9 wherein the outer body comprises aluminum.
11. The method of Claim 9 wherein the inner element is formed substantially from brass.
12. The method of Claim 8 wherein the coupling feature includes matable threads.
13. The method of Claim 8 wherein the inner element is at least one of a pressure reduction element or a flowmeter assembly.
14. The method of Claim 8 further comprising:
 - forming the outer body of a material having a first ignition point in the presence of high pressure oxygen; and
 - forming the inner element of a material having a second ignition point that is higher than the first ignition point.
15. A gas flow device for delivering a flow of medical oxygen at a prescribed dosage from a pressurized supply vessel to a patient, comprising:
 - an outer body formed from a unitary piece of a first material having a first ignition point, the outer body having an integrated yoke matable to the pressurized supply vessel and an inner cavity formed in the outer body, the outer body and the inner cavity bounded by an inner wall of the outer body;

an inner core having a pressure reduction element and an oxygen flowpath through the pressure reduction element, the flowpath through the pressure reduction element formed from a second material having a second ignition point higher than the first ignition point, the inner core extending within the inner cavity; and

a fitting extending through the outer body and engaging with the inner core to secure the inner core to the outer body.

16. The gas flow device of Claim 15 wherein the fitting is a hose connector.
17. The gas flow device of Claim 15 wherein the fitting is a pressure gauge.
- 10 18. The gas flow device of Claim 15 wherein the fitting is a check valve.
19. The gas flow device of Claim 15 wherein the first material comprises aluminum and the second material comprises brass.
20. The gas flow device of Claim 15 wherein the securing mechanism includes a coupling for attaching the inner core to the inner wall of the outer body.